

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An apparatus for examining a body part comprising:
means or a mechanism for immobilizing and compressing the body part;
means or a mechanism for providing an internal anatomical image of the body part; and
means or a mechanism for detecting single gamma-rays emitted by a radiotracer infiltrated into the body part in an adjacent relationship with said means or a mechanism for providing an internal anatomic image such that the body part remains in the same position during and between anatomic and radiotracer imaging;
wherein the body part is a prostate.

Claims 2-24 (Cancelled).

Please add new Claims 25-44 as per the following detailed listing of all claims:

25. (New) An apparatus for examining a body part, comprising:
means or a mechanism for immobilizing and compressing the body part; and
means or a mechanism for detecting single gamma rays emitted by a radiotracer infiltrated into the body part,
wherein the body part is a prostate.
26. (New) The apparatus of claim 25, wherein the detecting means or mechanism includes a detector module disposed on one side of the immobilizing means or mechanism, said detector module having at least one array of gamma ray sensitive material in communication with a position detector.
27. (New) The apparatus of claim 25, wherein the detecting means or mechanism includes a pair of detector modules disposed one on each side of the immobilizing means or mechanism,

each detector module having at least one array of gamma ray sensitive material in communication with a position detector.

28. (New) The apparatus of claim 25, further including means or a mechanism for providing an internal anatomical image of the body part.

29. (New) An apparatus for examining a body part, comprising:

means or a mechanism for immobilizing and compressing the body part;

means or a mechanism for providing a stereotactical internal anatomical image of the body part; and

means or a mechanism for providing a stereotactic radiotracer physiological image of the body part in an adjacent relationship with said means or a mechanism for providing an internal anatomic image such that the body part remains in the same position during and between anatomic and radiotracer imaging;

wherein the body part is a prostate.

30. (New) The apparatus of claim 29, wherein the means or mechanism for providing a stereotactic physiological image includes a pair of detector modules disposed one on each side of the immobilizing means or mechanism.

31. (New) The apparatus of claim 30, wherein the detector modules can be positioned to travel angularly about the body part to provide projection images of the body part from at least two different viewing angles.

32. (New) The apparatus of claim 30, wherein detector modules are stationary with respect to the body part and obtain multiple projection views of the body part.

33. (New) An apparatus for examining a body part, comprising:

means or a mechanism for immobilizing and compressing the body part; and

means or a mechanism for providing a stereotactic radiotracer physiological image of the body part,

wherein the body part is a prostate.

34. (New) The apparatus of claim 33, wherein the means or mechanism for providing a stereotactic radiotracer physiological image includes a pair of detector modules disposed one on each side of the immobilizing means or mechanism.

35. (New) The apparatus of claim 34, wherein the detector modules can be positioned to travel angularly about the body part to provide projection images of the body part from at least two different viewing angles.

36. (New) The apparatus of claim 34, wherein the detector modules are stationary with respect to the body part and obtain multiple projection views of the body part to form a stereotactic image.

37. (New) A method for examining a body part, comprising the steps of:
immobilizing the body part in a preferred position such that the body part is compressed;
and
obtaining at least one radiotracer physiological image of the body part,
wherein the body part is a prostate.

38. (New) The method of claim 37, wherein the obtaining step includes the step of obtaining stereotactic radiotracer physiological images of the body part.

39. (New) The method of claim 38, wherein before the immobilizing step, the method further comprises the steps of:
injecting the patient with a radiotracer which emits gamma rays; and
obtaining a stereotactic physiological image, including the step of detecting gamma rays with a pair of detector modules disposed one on each side of a means for performing the immobilizing step.

40. (New) The method of claim 39, wherein before the step of obtaining a stereotactic physiological image, the method further comprises the step of obtaining a stereotactic internal anatomical image of the body part.

41. (New) The method of claim 38, wherein after the step of obtaining a stereotactic physiological image, the method further comprises the step of directing a biopsy needle or gun into the body part using the stereotactic physiological image for three-dimensional guidance.

42. (New) The method of claim 41, wherein after the step of obtaining a stereotactic image, the method further comprises the step of operating on the patient using the obtained stereotactic image for guidance and localization.

43. (New) The method of claim 37, wherein after the step of obtaining the at least one image, the method further comprises the step of operating on the patient using the image for guidance, localization, and confirmation that any tumor of the body part has been removed completely.

44. (New) The method of claim 43, wherein after the operating step, the method further comprises the step of obtaining at least one image of surgical specimens to identify a presence of tumors and borders of the tumors.